Bonneville Power AdministrationPower Administration
Fish and Wildlife Program FY99 Proposal Form

Section 1. General administrative information

Idaho Model Watershed Habitat Projects

Bonneville project number, if an ongoing project 9401700

Business name of agency, institution or organization requesting funding
Lemhi and Custer Soil and Water Conservation Districts

Business acronym (if appropriate) SWCD

Proposal contact person or principal investigator:

Name	Jude Trapani, Project Coordinator
Mailing Address	206 Van Dreff St
City, ST Zip	Salmon, Idaho 83467
Phone	(208) 756-6322
Fax	(208) 756-6376
Email address	mws@dmi.net

Subcontractors.

Organization	Mailing Address	City, ST Zip	Contact Name
N/A			

NPPC Program Measure Number(s) which this project addresses.
7.7B.3

NMFS Biological Opinion Number(s) which this project addresses.

Endangered Species Act consultation done on a site specific project by project basis

Other planning document references.
Project operates under the "Model Watershed Plan" 1995 for the Lemhi, Pahsimeroi and East Fork of the Salmon Rivers. This project is conducted under section 7.6 of the Northwest Power Planning Council 1994 Columbia River Basin Fish and Wildlife Program. The project is consistent with the NPPC objective of working with private landowners to maintain and enhance andandromous fish habitat (section 7.7 specifically 7.7B3) This project enhances habitat for listed Snake River spring/summer chinook

salmon.

Subbasin.

Salmon River, Idaho

Short description.

To protect, enhance and restore anadromous and resident fish habitat and achieve and maintain a balance between resource protection and resource use on a holistic watershed management basis.

Section 2. Key words

Mark	Programmatic Categories	Mark	Activities	Mark	Project Types
X	**Anadromous fish**	X	**Construction**	X	**Watershed**
+	**Resident fish**		O & M		Biodiversity/genetics
	Wildlife		Production		Population dynamics
	Oceans/estuaries		Research		Ecosystems
	Climate	+	**Monitoring/eval.**	+	**Flow/survival**
	Other	+	**Resource mgmt**		Fish disease
			Planning/admin.		Supplementation
			Enforcement	+	**Wildlife habitat enhancement/restoration**
		+	**Acquisitions**		

Other keywords.

Grazing management, hayland and pasture planning, fencing, conservation easement

Section 3. Relationships to other Bonneville projects

Project #	Project title/description	Nature of relationship
9202603	Model Watershed Coordination & Admin/Implementation Support	Directly supports project work (project would not happen without coordination support)
9306200	Salmon River Anadromous Fish Passage Enhancement	"Co-project" for same area

Section 4. Objectives, tasks and schedules

Objectives and tasks

Obj 1,2,3	Objective	Task a,b,c	Task
1	Reduce water temperatures in streams through shading of the stream with improved vegetative cover.	a	Upper Lemhi River Riparian management project including riparian fencing, grazing plans and implementation of Best Management Practices.
		b	East Fork of Salmon River Habitat Enhancement Project including riparian fence along 6 miles of salmon spawning gravels.
		c	Pahsimeroi River fencing projects and grazing management.
		d	Conservation easement for Baker Ranch which would allow the East Fork of the Salmon River to stay a natural channel and reduce pressure from grazing.
2	Reduce erosion of streambanks to decrease fine silts in spawning gravels.		
3	Increase cover of streambanks to improve quality of fish resting and feeding cover.		
4	Increased productivity of anadromous fish through increase egg to fry survival and fry to smolt survival.		
5	Develop ranch management plans that identify Best Management Practices (BMP) to maintain or enhance fair to good quality fish habitat in priority stream segments identified in the Model Watershed Plan.		

* All projects involve all or part of the stated objectives.

Objective schedules and costs

Objective #	Start Date mm/yyyy	End Date mm/yyyy	Cost %
1	01/1999	12/1999	20
2	01/1999	12/1999	25
3	01/1999	12/1999	20
4	01/1999	12/1999	20
5	01/1999	12/1999	15

Schedule constraints.

Most of our projects require facilitating cooperation with a various federal and state agencies and private landowners. The project scope often changes with the development of consensus. Other constraints involve weather and availability of materials.

Completion date. Enter the last year that the project is expected to require funding.
2005

Section 5. Budget

FY99 budget by line item

Item	Note	FY99
Personnel	Project Planner(1395 hours x $14/hour)	$ 19,530
Fringe benefits	health benefits 6.6% of salary	$ 1,289
Supplies, materials, non-expendable property	Rock, wood fence material	$308,648
Operations & maintenance	Landowners responsibility	0
Capital acquisitions or improvements (e.g. land, buildings, major equip.)		0
Travel	1,460 miles x $0.31/mile Boise, Idaho $95/day x 3 days Challis, Idaho $90/day x 8 trips	$ 1,485
Indirect costs	5% SWCD overhead	$ 19,048
Subcontracts	Archeological clearances	$ 15,000
Other	Technical Support	$ 20,000
	Monitoring & Evaluation	$ 15,000
TOTAL		**$400,000**

Out year costs

List budget amounts for the next four years, and the estimated percentage of those costs for operations and maintenance (O&M).

Out year costs	FY2000	FY2001	FY2002	FY2003
Total budget	$400,000	$350,000	$350,000	$350,000
O&M as % of total	0	0	0	0

Section 6. Abstract

The Model Watershed Project was initiated by the Northwest Power Planning Council in 1992 to improve chinook salmon and steelhead habitat in the Lemhi, Pahsimeroi, and East Fork of the Salmon River watersheds. This habitat enhancement

project is administered through Lemhi and Custer Soil and Water Conservation Districts and coordinated through the Model Watershed in association with the local advisory and technical committees, public entities, and various local, state and federal agencies.

The goal of the project is to maintain, enhance, and restore anadromous and resident fish habitat while also achieving and maintaining a balance between resource protection and resource use on a holistic watershed management basis. Specific habitat goals, as outlined in the Model Watershed Plan, (1995) include increasing instream flows during critical migration periods, reduce the number of physical barriers hindering migration, develop new rearing and resting pools, establish riparian vegetation along critical areas, and reduce the sediment levels within the spawning gravels. Projects have included grazing management systems, fencing projects, streambank stabilization, riparian vegetation plantings, and instream structure work. These projects include both riparian pasture and riparian exclosure systems, providing direct benefit to fish habitat by improving pool composition, stream shading, and reduction in sedimentation as outlined in the 1994 Columbia River Basin Fish and Wildlife Programs habitat objectives.

Additionally, monitoring and evaluation is conducted through yearly reviews of project objectives and onsite inspection. This work can only happen with the cooperation of local communities, Soil and Water Conservation Districts, private landowners, Natural Resources Conservation Service, Idaho Department of Fish and Game, Bureau of Land Management, U.S. Fish and Wildlife Service, U.S. Forest Service, Shoshone Bannock Tribes, National Marine Fisheries Service, and Bonneville Power Administration and others.

Section 7. Project description

a. Technical and/or scientific background.

With the loss of anadromous fish runs in the Snake River system, habitat and migration problems have been closely scrutinized. The Model Watershed Projects were established by the NPPC to attempt to link spawning, rearing and migration habitat enhancements with current land use practices through a watershed approach. Both government agencies and resource users were and still continue to be very interested in anadromous fish recovery and are willing to participate in projects that accomplish these objectives. **Since 1993, over forty different habitat and passage projects have been completed with direct benefits to fish runs.** These include reducing migration barriers, increasing instream flows at critical periods and improving habitat conditions for all life-stages of fish.

Several studies were conducted as part of the MWP planning effort. These include stream habitat inventories, fisheries habitat inventories, water quality investigation and analysis, and erosion and sedimentation analysis for the Lemhi, Pahsimeroi and East Fork of the Salmon River. Although each watershed is different, the habitat problems and solutions are often very similar. One important distinction, however, is that all problems are not equal in terms of their impact on fisheries production. Prioritized goals and actions for each watershed have been identified in the Model Watershed plan based on the previous studies.

In the Model Watershed Project watersheds, approximately 90% of the currently occupied spawning habitat for anadromous fish occurs on **private land**. Working with private landowners and irrigators on "fish" projects requires local support, trust and involvement from all parties. The MWP has established these relationships and is currently implementing projects outlined in the Model Watershed Plan 1995. The project participants wish to continue making significant improvements for fish and their habitat.

The success of this project is tied to continued funding for the Model Watershed Coordination project #9202603. It is also dependent on staff support from the Idaho Soil Conservation Commission or from other technical agencies such as Natural Resource Conservation Service, Bureau of Land Management, Idaho Department of Fish and Game, Shoshone-Bannock Tribes, U.S. Forest Service, and others. These agencies along with Model Watershed staff supply technical assistance to develop well thought out projects.

b. Proposal objectives.

1 Reduce water temperatures in streams through shading of the stream with improved vegetative cover.
2 Reduce erosion of streambanks to decrease fine silts in spawning gravels.
3 Increase cover of streambanks to improve quality of fish resting and feeding cover.
4 Increased productivity of anadromous fish through increase egg to fry survival and fry to smolt survival.
5 Develop ranch management plans that identify Best Management Practices (BMP) to maintain or enhance fair to good quality fish habitat in priority stream segments identified in the Model Watershed Plan.

The hypothesis is that by increasing the quantity and quality of vegetation along the sixty miles of fair to good quality habitat in the three river basins will increase the egg to smolt production of these waters from the current seven to nine percent to fifteen to twenty percent.

c. Rationale and significance to Regional Programs.

The Lemhi Model Watershed Project (MWP) has direct significance to the Regional Fish and Wildlife Program. Section 7 of the 1994 FWP specifically addresses model watershed projects and their role in helping to reach the goals and objectives stated. The MWP bridges the gap between private, local, state and federal management on a watershed basis. Habitat issues such as spawning , rearing and migration habitat are being directly addressed and enhanced for anadromous and resident fish and wildlife. Specific aspects of habitat management such as sediment, bank stability, water quality, large woody debris, instream flow, riparian vegetation are being addresses on a watershed basis rather than haphazardly. FWP Section 7.7 directly addresses habitat protection and improvement with private landowners. The Lemhi MWP does just that where more than 90% of the currently occupied salmon/steelhead habitat is on private land.

d. Project history (for continuing projects).

The Lemhi MWP was established in 1992 with an Adminsitration budget for coordination and support #9202603. Project contracts were later added in 1993 for fish passage #9306200 and 1994 for fish habitat enhancement #9401700. This project is highly successful due to the cooperation of local landowners, SWCD boards, government agency personnel and others. It is common to hear "we all want to see the salmon and steelhead back here and we are willing to do our part".

The MWP Plan was finalized in 1995 and outlines habitat goals and objectives and how to implement. A complete stream habitat inventory was completed in 1994 for all three mainstem rivers. This information helps guide prioritization of projects to best help fish and wildlife. We are currently in the implementation phase with around twenty projects per year constructed from BPA grants among other funding sources. We want to emphasize the importance of the coordination aspect to make this all come together. Without continued coordination, the projects would most likely not be implemented or fail in the long-term due to poor communication and understanding.

Results are large in scope. Already we have resolved many high priority issues identified in the MWP Plan. These include major improvements to adult migration barriers in the lower Lemhi and Pahsimeroi Rivers, grazing management on fourteen miles of the Lemhi River and seven miles on the Pahsimeroi River all of which is in active spawning and rearing habitat for salmon/steelhead. Additionally, a twelve-mile plan has been developed for the most critical spawning and rearing habitat in the East Fork including bank stabilization, grazing management and irrigation management. Already we are implementing four large projects to meet our objectives.

This project is making improvements on one to eight miles of stream habitat with many projects rather than 100 yards at a time. Additionally, BPA funds are only part of the project implementation (*See attached tables at end of proposal form*).

e. Methods.

The basic methods are outlined in the MWP Plan. Goals that reduce mortality and enhance spawning, rearing and migration habitat in the Lemhi, Pahsimeroi and East Fork of the Salmon Rivers include:

1) Increase instream flows during critical fish migration periods,
2) Reduce the number of physical barriers hindering fish migrations,
3) Develop new rearing and resting pools,
4) Establish riparian vegetation along critical areas to provide cover and reduce water temperatures, and
5) Reduce the sediment levels within spawning gravels.

Site specific projects will be implemented to achieve the above goals. These follow general procedures of goal identification (listed above), landowner/site visit and project scoping, inventory/data collection (completed 1994 for stream/riparian habitat on the Lemhi, Pahsimeroi and East Fork of the Salmon Rivers), objective setting (MWP Plan), action plan (MWP Plan), project implementation/construction, monitoring and

evaluation (annual report). Site specific projects follow this format along with review from the MWP technical and advisory committees and the SWCD boards. This ensures not only technical soundness and maximum fish benefits but also local/community support critical for long-term success.

f. Facilities and equipment.

The MWP is funded for Coordination/Support including facilities needed. Other entities involved play a key role in making this process work including office space, equipment for project survey, design and construction. Without the coordination funding and the help from the agencies and entities involved, the site-specific projects would not happen.

g. References. (Not included in 10-page limit for this section.)

Idaho Soil Conservation Commission and Bonneville Power Administration. 1995. Model Watershed Plan for the Lemhi Pahsimeroi and East Fork of the Salmon Rivers, Idaho. DOE/BP-2772, Bonneville Power Adminsitration, Portland, Oregon.

Section 8. Relationships to other projects

The Lemhi MWP was established in 1992 with an Administration budget for coordination and support #9202603. Project contracts were later added in 1993 for fish passage #9306200 and 1994 for fish habitat enhancement #9401700.

We are currently in the implementation phase with around twenty projects per year constructed from BPA grants among other funding sources. We want to emphasize the importance of the coordination aspect to make this all come together. Without continued coordination, the projects would most likely not be implemented or fail in the long-term due to poor communication and understanding.

Section 9. Key personnel

Jude Trapani, Project Coordinator, Full Time
Duties: Implements "Model Watershed Plan" on a watershed scale. Works with MWP Advisory Committee and Technical Team to identify and evaluate the impacts of all proposed and implemented actions to fish habitat and fish passage projects on a watershed scale. Provide coordination and leadership in an integrated effort of watershed management on private and public lands. Works with other agencies and landowners in evaluating the impacts of all proposed and implemented actions on watershed management. Supervises office coordinator and project planner. Coordinates and manages funding and budget expenditures for MWP. Assists participants in grant proposals and funding needs for watershed projects. Prepares work plans and budgets for administration, passage, and habitat projects in coordination with the Custer and Lemhi Soil & Water Conservation Districts.

Katie Slavin, Office Coordinator, ½ time or 85 hours a month.
Duties: General office duties including meeting minutes, agendas, filing, computer data entry, and correspondence. Also responsible for newsletters, news releases, and poster board display. Finalizes quarterly reports to BPA and assists with preparation of work plans and budgets.

Allen Bradbury, Project Planner, Lemhi Soil Conservation District employee (Full Time)
Duties: Assist Project Coordinator with planning and implementation of projects at all phases. Collect information and data on projects, meet with landowners or landmanagers and negotiate contracts for funding. Monitors past and on-going projects and follow-up with funding agencies and landowners.

Kathy Weaver, SCC Program Coordinator, 5% of staff time dedicated to MWS
Duties: Assist with meeting facilitation, information and education consultation and training to MWP Coordinator and Clerk.

Biff Burleigh, SCC Project Specialist, 5% of staff time dedicated to MWS
Duties: Perform liaison between SCC, SCD's, NRCS, and Project Coordinator. Assist Coordinator with progress reports and assess project needs as requested.

SCC Secretarial, SCC staff support clerical, Temporary, part time.
Duties: Employee is responsible for processing and paying all MWP expenses including salaries, office rent, travel, supplies, and equipment leases. All financial transactions are paid from Boise SCC office.
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Section 10. Information/technology transfer

The MWP has an aggressive information and education program. The MWP office publishes three newsletters per year which are mailed to all postal patrons in Lemhi and Custer counties plus many other interested parties. Three to four tours of MWP project sites are conducted which are attended by state representatives, county commissioners, interested citizens, agency personnel. All three MWP office employees participate in public speaking and presentations to elementary school children, community members, government officials, and university professors

Table 1. Habitat enhancement funding contributions on Lemhi River projects.

	Habitat Enhancement Funding Contributions								
Lemhi Projects	**Result**	Idaho Fish & Game	Bureau of Reclamation	Bonneville Power	Shoshone-Bannock Tribes	U.S. Fish & Wildlife Service	Technical Support	Land-owner	Other
Tyler Project	**Fencing on 8.5 miles of occupied habitat**						Univ. of Idaho/ NRCS		Noranda Mine 350,000
Beyeler Fence	**Fencing on 1.2 miles of occupied habitat**	8,000			Labor 2,000			Labor 1,000	Labor BLM/FS
Neibaur Fence	**Fence on 3.5 miles of occupied habitat**			32,000			NRCS	Labor 7,000	
Kesl Fence	**Fence on 1.5 miles of occupied habitat**			28,000			NRCS	Labor 5,000	
Thomas Fence	**Fence on 3.5 miles of occupied habitat**	8,000			Labor 2,000			O&M	
Sager Barbs	**Structures maintaining critical pool habitat**		3,000				NRCS	2,000	
Muleshoe Fences	**Fence on 0.5 mile occupied habitat**	4,000				4,500		Labor 2,000	
Elzinga Fence	**Fence on 0.5 mile of historic habitat**					4,000		Labor 4,000	
Turner Fence	**Fence on 0.5 mile of historic habitat**	3,000				8,000		Labor 8,000	
Aldous Fence	**Fence on 1 mile of Salmon River**					3,000		Labor 3,000	
L-5 Diversion	**Elimination of diversion and creation of off-channel rearing habitat**		400,000				NRCS	110,000	Nature Conservancy 10,000

Table 2. Habitat enhancement funding contributions on Pahsimeroi and East Fork of the Salmon River projects.

Pahsimeroi Projects	**Result**	Fish & Game	Bureau of Reclamation	Bonneville Power	Tribes	U.S. Fish & Wildlife	Technical	Land-owner	Other
Dowton Fence	**Fence on 2 miles of occupied habitat**			13,000				Labor 4,000	
Chewning Fence	**Fence on 2 miles of occupied habitat**			11,000				Labor 2,500	
Coleman Fence	**Fence on 2 miles of occupied habitat**			19,000				Labor 3,000	
Latimer Fence	**Fence on 1 mile of occupied habitat**			19,000				Labor 3,000	
Cutler Fence	**Fence on 1 mile of occupied habitat**			16,000				Labor 2,000	
Hannah Slough	**Fence on .25 mile of Salmon River**		15,000	5,000		10,000			DEQ 10,000, Water Res. 5,000, Local Mining Co.10,000
East Fork Projects		Fish & Game	Bureau of Reclamation	Bonneville Power	Tribes	U.S. Fish & Wildlife	Technical	Land-owner	Other
Jr. Baker	**Bank stabilization on 4 miles of occupied habitat**			40,000				Labor and Equipment	
D.Baker	**Bank stabilization on .25 miles of occupied habitat**			3,000				O&M	
W. Baker	**Fence on 1 mile of occupied habitat**			3,000				Labor 1,000	
Ingram	**Fence on 1 mile of occupied habitat**			8,000				Labor 1,000	

Total of all 3 Watersheds		23,000	418,000	197,000	4,000	29,500	~10,000	158,500+	385,000